¹⁹ 420 Rec'd PCT/PTO 2 9 NOV 1999

CLAIMS

1. A process for obtaining quinapril hydrochloride of formula (I)

(I)

which comprises the stages of:

a) treatment of the benzyl ester of quinapril (II)

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where Bz is the benzyl radical, with alcohol and hydrochloric acid or hydrogen chloride and hydrogenation of same through the addition of an appropriate hydrogenation catalyst;

- b) removal of the solvent used in step a);
- c) addition of toluene to precipitate the quinapril hydrochloride as a toluene solvate;

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d) treatment of the toluene solvate of quinapril hydrochloride with a solvent belonging to class 3, capable of forming a solvate of quinapril hydrochloride from which it is possible to eliminate said solvent by drying in an oven without degrading the quinapril hydrochloride; and

e) drying of the solvate obtained in step d) at a temperature between 40°C and 50°C to yield quinapril hydrochloride (I)

- 2. A process according to claim 1 wherein the hydrogenolysis reaction of the benzyl ester of quinapril (II) is carried out in a alcoholic solvent, with treatment with concentrated hydrochloric acid or with a solution of hydrogen chloride in isopropanol, and hydrogenation with hydrogen gas in the presence of a hydrogenation catalyst.
- 3. A process according to claim 2, wherein said alcoholic solvent is chosen from between ethanol or isopropanol.
 - 4. A process according to claim 2, wherein the hydrogenation is carried out at a pressure comprised 10^4 Pa and 2×10^5 Pa.
- 5. A process according to claim 2, wherein the hydrogenation is carried out at a temperature comprised 10 and 40°C.
 - 6. A process according to claim 2, wherein the hydrogenation catalyst is Pd/C.

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7. A process according to claim 2, wherein the hydrogenolysis reaction of the benzyl ester of quinapril (II) is carried out using ethanol as a solvent, concentrated hydrochloric acid, a pressure of 1 x 10^5 Pa (1 bar) and room temperature.

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8. A process according to claim 2, wherein the hydrogenolysis reaction of the benzyl ester of quinapril (II) is carried out using isopropanol as a solvent, a solution of hydrogen chloride in isopropanol, a pressure of 2 x 10⁵ Pa (1 bar) and a temperature of approximately 30 °C.

- 9. A process according to claim 2 wherein the molar ratio between the benzyl ester of quinapril (II) and the hydrochloric acid can be equal or greater in a proportion of 1.1 (benzyl ester of quinapril (II)) to 1 (hydrochloric acid) with respect to stoichiometric one.
- 10. A process according to claim 1, wherein the removal of the solvent used in stage a) is carried out by vacuum-distillation.
 - 11. A process according to claim 1, wherein the Class 3 solvent used to treat the toluene solvate of quinapril hydrochloride is chosen from among ethyl formate and methyl acetate.

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- 12. A process according to claim 1, wherein the treatment of the toluene solvate of quinapril hydrochloride with the class 3 solvent is carried out at a temperature comprised between 40°C and 45°C, for a period of time comprised between 1 and 2 hours, and is subsequently cooled down to a temperatue comprised between 20 °C and 25 °C, for a period of time comprised between 1 and 2 hours.
- 13. A process according to claim 1, wherein the Class 3 solvent solvate of quinapril hydrochloride is chosen from among ethyl formate solvate of quinapril hydrochloride and the methyl acetate solvate of quinapril hydrochloride.
 - 14. A process according to claim 1, wherein the Class 3 solvent solvate of quinapril hydrochloride is dried in a vacuum oven, at a temperature comprised between 40 and 50 °C for a period of time comprised between 12 and 24 hours.